

ENVIROCON, INC.

101 INTERNATIONAL WAY  
POST OFFICE BOX 8243  
MISSOULA, MONTANA 59807  
TELEPHONE: (406) 523-1150  
FAX: (406) 721-4794

February 13, 1991

ENVIROCON, INC.

Solid and Hazardous Waste Bureau  
Department of Health and  
Environmental Sciences  
Cogswell Building  
Helena, Montana 59620

STATE DOCUMENTS COLLECTION

FEB 13 1992

MONTANA STATE LIBRARY  
1515 E. 6th AVE.  
HELENA, MONTANA 59620

Attention: Mr. John Wadhams

**Subject: December 1990 Ground Water Sampling Results - Livingston Rail Yard**

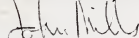
Dear John:

Burlington Northern Railroad Co., through its contractor Envirocon, Inc., collected seven samples during the December 1990 monthly sampling round. Five of the samples were from Wells LG-10, LB-6 (two samples), 89-2, and the B Street Well, and two samples were trip blanks. Enclosed are complete sample analytical results.

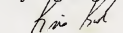
If you have any questions or comments about this data, please contact me at your convenience.

Sincerely,

ENVIROCON, INC.



John Mills  
Hydrogeologist



Kris Kok  
Project Manager

Enclosures

cc: Mel Burda  
Dennis Iverson  
Steve Pilcher  
Mike Stevenson  
Missoula file

PLEASE RETURN

Montana State Library



3 0864 1006 7253 7

**ENERGY LABORATORIES, INC.**P.O. BOX 30916 • 1107 SOUTH BROADWAY • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325  
FAX (406) 252-6069 • 1-800-873-5227ENVIROCON  
PO BOX 1154  
LIVINGSTON MT 59047

RECEIVED

JAN 15 1991

RECEIVED  
ANALYTICAL

## Water Analysis

PROJECT: Livingston / BN

|                       |            |
|-----------------------|------------|
| LAB NO.               | 91-1697    |
| SAMPLE IDENTIFICATION | 140101-630 |
| SAMPLE SUBMITTED      | 01/04/91   |
| DATE REPORTED         | 01/14/91   |
| SAMPLE DATE           | 01/03/91   |
| SAMPLE TIME           | 1310       |

| CONSTITUENT | ug/l |
|-------------|------|
|-------------|------|

|                             |       |
|-----------------------------|-------|
| Benzene                     | <0.50 |
| Bromobenzene                | <1.0  |
| Bromochloromethane          | <1.0  |
| Bromodichloromethane        | <1.0  |
| Bromoform                   | <1.0  |
| Bromomethane                | <1.0  |
| n-Butylbenzene              | <1.0  |
| sec-Butylbenzene            | <1.0  |
| tert-Butylbenzene           | <1.0  |
| Carbon tetrachloride        | <0.50 |
| Chlorobenzene               | <1.0  |
| Chloroethane                | <1.0  |
| Chloroform                  | <1.0  |
| Chloromethane               | <1.0  |
| 2-Chlorotoluene             | <1.0  |
| 4-Chlorotoluene             | <1.0  |
| 1,2-Dibromo-3-chloropropane | <1.0  |
| Dibromochloromethane        | <1.0  |
| 1,2-Dibromoethane           | <1.0  |
| 1,2-Dichlorobenzene         | <1.0  |
| 1,3-Dichlorobenzene         | <1.0  |
| 1,4-Dichlorobenzene         | <0.50 |
| Dichlorodifluoromethane     | <1.0  |
| 1,1-Dichloroethane          | <1.0  |
| 1,2-Dichloroethane          | <0.50 |
| 1,1-Dichloroethene          | <0.50 |
| cis-1,2-Dichloroethene      | <1.0  |
| trans-1,2-Dichloroethene    | <1.0  |
| 1,2-Dichloropropane         | <1.0  |
| 1,3-Dichloropropane         | <1.0  |
| 2,2-Dichloropropane         | <1.0  |
| 1,1-Dichloropropene         | <1.0  |
| cis-1,3-Dichloropropene     | <1.0  |
| trans-1,3-Dichloropropene   | <1.0  |



ENVIROCON  
PO BOX 1154  
LIVINGSTON MT 59047

RECEIVED

JAN 11 1991

ENVIROCON, INC.  
LIVINGSTON, MT

## Water Analysis

PROJECT: Livingston / BN

PAGE 2

|                       |            |
|-----------------------|------------|
| LAB NO.               | 91-1697    |
| SAMPLE IDENTIFICATION | 140101-630 |
| SAMPLE SUBMITTED      | 01/04/91   |
| DATE REPORTED         | 01/14/91   |
| SAMPLE DATE           | 01/03/91   |
| SAMPLE TIME           | 1310       |

| CONSTITUENT | ug/l |
|-------------|------|
|-------------|------|

|                           |       |
|---------------------------|-------|
| Ethylbenzene              | <1.0  |
| Hexachlorobutadiene       | <1.0  |
| Isopropylbenzene          | <1.0  |
| p-Isopropyltoluene        | <1.0  |
| Methylene chloride        | <1.0  |
| Naphthalene               | <1.0  |
| n-Propylbenzene           | <1.0  |
| Styrene                   | <1.0  |
| 1,1,1,2-Tetrachloroethane | <1.0  |
| 1,1,2,2-Tetrachloroethane | <1.0  |
| Tetrachloroethene         | <0.50 |
| Toluene                   | <1.0  |
| 1,2,3-Trichlorobenzene    | <1.0  |
| 1,2,4-Trichlorobenzene    | <1.0  |
| 1,1,1-Trichloroethane     | <0.50 |
| 1,1,2-Trichloroethane     | <1.0  |
| Trichloroethene           | <0.50 |
| Trichlorofluoromethane    | <1.0  |
| 1,2,3-Trichloropropane    | <1.0  |
| 1,2,4-Trimethylbenzene    | <1.0  |
| 1,3,5-Trimethylbenzene    | <1.0  |
| Vinyl chloride            | <0.50 |
| Xylenes                   | <1.0  |

REMARKS: Sample was properly preserved and in specified container.  
Sample was analyzed in accordance with EPA Method 524.2.Q.A. Review: for Shalin





**ENERGY LABORATORIES, INC.**

P.O. BOX 30916 • 1107 SOUTH BROADWAY • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325  
FAX (406) 252-6069 • 1-800-873-5227

RECEIVED

1994 15 1990

ENVIROCON, Inc.  
Livingston, N.J.

ENVIROCON  
PO BOX 1154  
LIVINGSTON MT 59047

## Water Analysis

PROJECT: Livingston / BN

LAB NO.  
SAMPLE IDENTIFICATION  
SAMPLE SUBMITTED  
DATE REPORTED  
SAMPLE DATE  
SAMPLE TIME

|            |            |
|------------|------------|
| 91-1695    | 91-1696    |
| 140101-628 | 140101-629 |
| 01/04/91   | 01/04/91   |
| 01/14/91   | 01/14/91   |
| 01/03/91   | 01/03/91   |
| 1045       | 1233       |

CONSTITUENT

ug/l

ug/l

Purgeable Halocarbons  
EPA Method 8260

Bromodichloromethane  
Bromoform  
Bromomethane  
Carbon tetrachloride  
Chlorobenzene  
Chloroethane  
2-Chloroethylvinyl ether  
2-Chlorotoluene  
Chloroform  
Chloromethane  
Dibromochloromethane  
1,2-Dichlorobenzene  
1,3-Dichlorobenzene  
1,4-Dichlorobenzene  
1,1-Dichloroethane  
1,2-Dichloroethane  
1,1-Dichloroethene  
cis-1,2-Dichloroethene  
trans-1,2-Dichloroethene

[illegible]







## ENERGY LABORATORIES, INC.

P.O. BOX 30916 • 1107 SOUTH BROADWAY • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325  
FAX (406) 252-6069 • 1-800-873-5227

RECEIVED

ENVIROCON  
PO BOX 1154  
LIVINGSTON MT 59047

## Water Analysis

PROJECT: Livingston / BN

PAGE 2

|                       |            |            |
|-----------------------|------------|------------|
| LAB NO.               | 91-1695    | 91-1696    |
| SAMPLE IDENTIFICATION | 140101-628 | 140101-629 |
| SAMPLE SUBMITTED      | 01/04/91   | 01/04/91   |
| DATE REPORTED         | 01/14/91   | 01/14/91   |
| SAMPLE DATE           | 01/03/91   | 01/03/91   |
| SAMPLE TIME           | 1045       | 1233       |

|             |      |      |
|-------------|------|------|
| CONSTITUENT | ug/l | ug/l |
|-------------|------|------|

Purgeable Halocarbons  
EPA Method 8260

|                           |      |      |
|---------------------------|------|------|
| 1,2-Dichloropropane       | <1.0 | <1.0 |
| cis-1,3-Dichloropropene   | <1.0 | <1.0 |
| trans-1,3-Dichloropropene | <1.0 | <1.0 |
| Methylene chloride        | <1.0 | <1.0 |
| 1,1,2,2-Tetrachloroethane | <1.0 | <1.0 |
| Tetrachloroethene         | <1.0 | <1.0 |
| 1,1,1-Trichloroethane     | <1.0 | <1.0 |
| 1,1,2-Trichloroethane     | <1.0 | <1.0 |
| Trichloroethene           | <1.0 | <1.0 |
| Trichlorofluoromethane    | <1.0 | <1.0 |
| Vinyl chloride            | <1.0 | <1.0 |
| Dichlorodifluoromethane   | <1.0 | <1.0 |

NOTE: This analysis is equivalent to EPA Methods 601/8010.

Q.A. Review: for Stedman





# ENERGY LABORATORIES, INC.

P.O. BOX 30916 • 1107 SOUTH BROADWAY • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325  
FAX (406) 252-6069 • 1-800-873-5227

ENVIROCON  
PO BOX 1154  
LIVINGSTON MT 59047

## Water Analysis

PROJECT: Livingston / BN

|                       |            |            |
|-----------------------|------------|------------|
| LAB NO.               | 90-35074   | 90-35075   |
| SAMPLE IDENTIFICATION | 140101-625 | 140101-627 |
| SAMPLE SUBMITTED      | 12/31/90   | 12/31/90   |
| DATE REPORTED         | 01/24/91   | 01/24/91   |
| SAMPLE DATE           | 12/28/90   | 12/28/90   |
| SAMPLE TIME           | 1345       | 1603       |

|             |      |      |
|-------------|------|------|
| CONSTITUENT | ug/l | ug/l |
|-------------|------|------|

## Purgeable Halocarbons EPA Method 524.2

|                          |       |       |
|--------------------------|-------|-------|
| Bromodichloromethane     | <1.0  | <1.0  |
| Bromoform                | <1.0  | <1.0  |
| Bromomethane             | <1.0  | <1.0  |
| Carbon tetrachloride     | <0.50 | <0.50 |
| Chlorobenzene            | <1.0  | <1.0  |
| Chloroethane             | <1.0  | <1.0  |
| 2-Chloroethylvinyl ether | <1.0  | <1.0  |
| 2-Chlorotoluene          | <1.0  | <1.0  |
| Chloroform               | <1.0  | <1.0  |
| Chloromethane            | <1.0  | <1.0  |
| Dibromochloromethane     | <1.0  | <1.0  |
| 1,2-Dichlorobenzene      | <1.0  | <1.0  |
| 1,3-Dichlorobenzene      | <1.0  | <1.0  |
| 1,4-Dichlorobenzene      | <0.50 | <0.50 |
| 1,1-Dichloroethane       | <1.0  | <1.0  |
| 1,2-Dichloroethane       | <0.50 | <0.50 |
| 1,1-Dichloroethene       | <0.50 | <0.50 |
| cis-1,2-Dichloroethene   | <1.0  | <1.0  |
| trans-1,2-Dichloroethene | <1.0  | <1.0  |



ENVIROCON  
PO BOX 1154  
LIVINGSTON MT 59047**Water Analysis**

PROJECT: Livingston / BN

PAGE 2

|                       |            |            |
|-----------------------|------------|------------|
| LAB NO.               | 90-35074   | 90-35075   |
| SAMPLE IDENTIFICATION | 140101-625 | 140101-627 |
| SAMPLE SUBMITTED      | 12/31/90   | 12/31/90   |
| DATE REPORTED         | 01/24/91   | 01/24/91   |
| SAMPLE DATE           | 12/28/90   | 12/28/90   |
| SAMPLE TIME           | 1345       | 1603       |

|             |      |      |
|-------------|------|------|
| CONSTITUENT | ug/l | ug/l |
|-------------|------|------|

Purgeable Halocarbons  
EPA Method 524.2

|                           |       |       |
|---------------------------|-------|-------|
| 1,2-Dichloropropane       | <1.0  | <1.0  |
| cis-1,3-Dichloropropene   | <1.0  | <1.0  |
| trans-1,3-Dichloropropene | <1.0  | <1.0  |
| Methylene chloride        | <1.0  | <1.0  |
| 1,1,2,2-Tetrachloroethane | <1.0  | <1.0  |
| Tetrachloroethene         | <0.50 | <0.50 |
| 1,1,1-Trichloroethane     | <1.0  | <1.0  |
| 1,1,2-Trichloroethane     | <1.0  | <1.0  |
| Trichloroethene           | <0.50 | <0.50 |
| Trichlorofluoromethane    | <1.0  | <1.0  |
| Vinyl chloride            | <0.50 | <0.50 |
| Dichlorodifluoromethane   | <1.0  | <1.0  |

NOTE: This analysis is equivalent to EPA Method 601.

Q.A. Review: for Shuler



19



ENERGY LABORATORIES, INC.

P.O. BOX 30916 • 1107 SOUTH BROADWAY • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325  
FAX (406) 252-6069 • 1-800-873-5227

ENVIROCON  
PO BOX 1154  
LIVINGSTON MT 59047

Water Analysis

PROJECT: Livingston/BN

LB-10

|                       |            |
|-----------------------|------------|
| LAB NO.               | 90-35073   |
| SAMPLE IDENTIFICATION | 140101-626 |
| SAMPLE SUBMITTED      | 12/31/90   |
| DATE REPORTED         | 01/02/91   |
| SAMPLE DATE           | 12/28/90   |
| SAMPLE TIME           | 1450       |

Volatile Organic Constituent ug/l

|                             |       |
|-----------------------------|-------|
| Benzene                     | <0.50 |
| Bromobenzene                | <1.0  |
| Bromochloromethane          | <1.0  |
| Bromodichloromethane        | <1.0  |
| Bromoform                   | <1.0  |
| Bromomethane                | <1.0  |
| n-Butylbenzene              | <1.0  |
| sec-Butylbenzene            | <1.0  |
| tert-Butylbenzene           | <1.0  |
| Carbon tetrachloride        | <0.50 |
| Chlorobenzene               | <1.0  |
| Chloroethane                | <1.0  |
| Chloroform                  | <1.0  |
| Chloromethane               | <1.0  |
| 2-Chlorotoluene             | <1.0  |
| 4-Chlorotoluene             | <1.0  |
| 1,2-Dibromo-3-chloropropane | <1.0  |
| Dibromochloromethane        | <1.0  |
| 1,2-Dibromoethane           | <1.0  |
| Dibromomethane              | <1.0  |
| 1,2-Dichlorobenzene         | <1.0  |
| 1,3-Dichlorobenzene         | <1.0  |
| 1,4-Dichlorobenzene         | <0.50 |
| Dichlorodifluoromethane     | <1.0  |
| 1,1-Dichloroethane          | <1.0  |
| 1,2-Dichloroethane          | <0.50 |
| 1,1-Dichloroethene          | <0.50 |
| cis-1,2-Dichloroethene      | <1.0  |
| trans-1,2-Dichloroethene    | <1.0  |
| 1,2-Dichloropropane         | <1.0  |





ENVIROCON  
PO BOX 1154  
LIVINGSTON MT 59047

## Water Analysis

PROJECT: Livingston/BN

PAGE 2

LAB NO. 90-35073  
SAMPLE IDENTIFICATION 140101-626  
SAMPLE SUBMITTED 12/31/90  
DATE REPORTED 01/02/91  
SAMPLE DATE 12/28/90  
SAMPLE TIME 1450

| Volatile Organic Constituent | ug/l  |
|------------------------------|-------|
| 1,3-Dichloropropane          | <1.0  |
| 2,2-Dichloropropane          | <1.0  |
| 1,1-Dichloropropene          | <1.0  |
| cis-1,3-Dichloropropene      | <1.0  |
| trans-1,3-Dichloropropene    | <1.0  |
| Ethylbenzene                 | <1.0  |
| Hexachlorobutadiene          | <1.0  |
| Isopropylbenzene             | <1.0  |
| p-Isopropyltoluene           | <1.0  |
| Methylene chloride           | <1.0  |
| Naphthalene                  | <1.0  |
| n-Propylbenzene              | <1.0  |
| Styrene                      | <1.0  |
| 1,1,1,2-Tetrachloroethane    | <1.0  |
| 1,1,2,2-Tetrachloroethane    | <1.0  |
| Tetrachloroethene            | 0.62  |
| Toluene                      | <1.0  |
| 1,2,3-Trichlorobenzene       | <1.0  |
| 1,2,4-Trichlorobenzene       | <1.0  |
| 1,1,1-Trichloroethane        | <0.50 |
| 1,1,2-Trichloroethane        | <1.0  |
| Trichloroethene              | <0.50 |
| Trichlorofluoromethane       | <1.0  |
| 1,2,3-Trichloropropane       | <1.0  |
| 1,2,4-Trimethylbenzene       | <1.0  |
| 1,3,5-Trimethylbenzene       | <1.0  |
| Vinyl chloride               | <0.50 |
| m+p-Xylenes                  | <1.0  |
| o-Xylene                     | <1.0  |

REMARKS: Sample was properly preserved and in specified container.  
Sample was analyzed in accordance with EPA Method 524.2.Q.A. Review: for Shuler



BN

ENVIROCON  
PO BOX 1154  
LIVINGSTON MT 59047RECEIVED  
LUG 26 1990ENVIROCON, Inc.  
Livingston, MT

Water Analysis

PROJECT: ~~Livingston - BNP~~  
~~Thomas O'Connor~~

|                       |            |
|-----------------------|------------|
| LAB NO.               | 90-33981   |
| SAMPLE IDENTIFICATION | 140101-624 |
| SAMPLE SUBMITTED      | 12/12/90   |
| DATE REPORTED         | 12/20/90   |
| SAMPLE DATE           | 12/04/90   |
| SAMPLE TIME           | 1340       |

Total Petroleum Hydrocarbons &lt;0.1 mg/l (ppm)

Q.A. Review: for Shuler

→ 1390

See included in  
De...  
... (P)



ENVIROCON  
PO BOX 1154  
LIVINGSTON MT 59047

RECEIVED  
DEC 26 1990  
ENVIROCON, Inc.  
11-252-6069

# Water Analysis

PROJECT: ~~Krona/O'Connor~~

| LAB NO.                   | 90-33979  | 90-33980  | 90-33981   |
|---------------------------|-----------|-----------|------------|
| SAMPLE IDENTIFICATION     | 140103-27 | 140103-28 | 140101-624 |
| SAMPLE SUBMITTED          | 12/12/90  | 12/12/90  | 12/12/90   |
| DATE REPORTED             | 12/20/90  | 12/20/90  | 12/20/90   |
| SAMPLE DATE               | 12/04/90  | 12/04/90  | 12/04/90   |
| SAMPLE TIME               | 1220      | 1255      | 1340       |
| CONSTITUENT               | ug/l      | ug/l      | ug/l       |
| Dichlorodifluoromethane   | <1.0      | <1.0      | <1.0       |
| Chloromethane             | <1.0      | <1.0      | <1.0       |
| Vinyl chloride            | <0.50     | <0.50     | <0.50      |
| Bromomethane              | <1.0      | <1.0      | <1.0       |
| Chloroethane              | <1.0      | <1.0      | <1.0       |
| Trichlorofluoromethane    | <1.0      | <1.0      | <1.0       |
| 1,1-Dichloroethene        | <0.50     | <0.50     | <0.50      |
| Methylene Chloride        | <1.0      | <1.0      | <1.0       |
| trans-1,2-Dichloroethene  | <1.0      | <1.0      | <1.0       |
| 1,1-Dichloroethane        | <1.0      | <1.0      | <1.0       |
| 2,2-Dichloropropane       | <1.0      | <1.0      | <1.0       |
| cis-1,2-Dichloroethene    | <1.0      | <1.0      | <1.0       |
| Chloroform                | <1.0      | <1.0      | <1.0       |
| Bromochloromethane        | <1.0      | <1.0      | <1.0       |
| 1,1,1-Trichloroethane     | <0.50     | <0.50     | <0.50      |
| Carbon Tetrachloride      | <0.50     | <0.50     | <0.50      |
| 1,1-Dichloropropene       | <1.0      | <1.0      | <1.0       |
| Benzene                   | <0.50     | <0.50     | <0.50      |
| 1,2-Dichloroethane        | <0.50     | <0.50     | <0.50      |
| Trichloroethene           | <0.50     | <0.50     | <0.50      |
| 1,2-Dichloropropane       | <1.0      | <1.0      | <1.0       |
| Bromodichloromethane      | <1.0      | <1.0      | <1.0       |
| Dibromomethane            | <1.0      | <1.0      | <1.0       |
| Toluene                   | <1.0      | <1.0      | <1.0       |
| 1,1,2-Trichloroethane     | <1.0      | <1.0      | <1.0       |
| Tetrachloroethene         | 7.9       | <0.50     | 0.79       |
| 1,3-Dichloropropane       | <1.0      | <1.0      | <1.0       |
| Dibromochloromethane      | <1.0      | 1.0       | <1.0       |
| 1,2-Dibromoethane         | <1.0      | <1.0      | <1.0       |
| Chlorobenzene             | <1.0      | <1.0      | <1.0       |
| 1,1,1,2-Tetrachloroethane | <1.0      | <1.0      | <1.0       |



Page 2

ENVIROCON  
PO BOX 1154  
LIVINGSTON MT 59047

**Water Analysis**

PROJECT: ~~Kocher~~ ~~to Corner~~

| LAB NO.                     | 90-33979  | 90-33980  | 90-33981   |
|-----------------------------|-----------|-----------|------------|
| SAMPLE IDENTIFICATION       | 140103-27 | 140103-28 | 140101-624 |
| SAMPLE SUBMITTED            | 12/12/90  | 12/12/90  | 12/12/90   |
| DATE REPORTED               | 12/20/90  | 12/20/90  | 12/20/90   |
| SAMPLE DATE                 | 12/04/90  | 12/04/90  | 12/04/90   |
| SAMPLE TIME                 | 1220      | 1255      | 1340       |
| CONSTITUENT                 | ug/l      | ug/l      | ug/l       |
| Ethylbenzene                | <1.0      | <1.0      | <1.0       |
| m+p-Xylenes                 | <1.0      | <1.0      | <1.0       |
| o-Xylenes                   | <1.0      | <1.0      | <1.0       |
| Styrene                     | <1.0      | <1.0      | <1.0       |
| Bromoform                   | <1.0      | <1.0      | <1.0       |
| Isopropylbenzene            | <1.0      | <1.0      | <1.0       |
| 1,1,2,2-Tetrachloroethane   | <1.0      | <1.0      | <1.0       |
| Bromobenzene                | <1.0      | <1.0      | <1.0       |
| 1,2,3-Trichloropropane      | <1.0      | <1.0      | <1.0       |
| n-Propylbenzene             | <1.0      | <1.0      | <1.0       |
| 2-Chlorotoluene             | <1.0      | <1.0      | <1.0       |
| 1,3,5-Trimethylbenzene      | <1.0      | <1.0      | <1.0       |
| 4-Chlorotoluene             | <1.0      | <1.0      | <1.0       |
| tert-Butylbenzene           | <1.0      | <1.0      | <1.0       |
| 1,2,4-Trimethylbenzene      | <1.0      | <1.0      | <1.0       |
| sec-Butylbenzene            | <1.0      | <1.0      | <1.0       |
| p-Isopropyltoluene          | <1.0      | <1.0      | <1.0       |
| 1,3-Dichlorobenzene         | <1.0      | <1.0      | <1.0       |
| 1,4-Dichlorobenzene         | <0.50     | <0.50     | <0.50      |
| n-Butylbenzene              | <1.0      | <1.0      | <1.0       |
| 1,2-Dichlorobenzene         | <1.0      | <1.0      | <1.0       |
| 1,2-Dibromo-3-Chloropropane | <1.0      | <1.0      | <1.0       |
| 1,2,4-Trichlorobenzene      | <1.0      | <1.0      | <1.0       |
| Hexachlorobutadiene         | <1.0      | <1.0      | <1.0       |
| Naphthalene                 | <1.0      | <1.0      | <1.0       |
| 1,2,3-Trichlorobenzene      | <1.0      | <1.0      | <1.0       |
| cis-1,3-Dichloropropene     | <1.0      | <1.0      | <1.0       |
| trans-1,3-Dichloropropene   | <1.0      | <1.0      | <1.0       |

REMARKS: Sample was properly preserved and in specified container. Sample was analyzed in accordance with EPA method 524.2.

Q.A. Review: *[Signature]*







ENERGY LABORATORIES, INC.

P.O. BOX 30916 • 1107 SOUTH BROADWAY • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325  
FAX (406) 252-6069 • 1-800-873-5227

ENVIROCON  
PO BOX 1154  
LIVINGSTON MT 59047

WATER VOLATILE SURROGATE RECOVERY

PROJECT: Livingston/BN

| SAMPLE NO. | S1<br>(TOL) # | S2<br>(BFB) # | S3<br>(DCE) # |
|------------|---------------|---------------|---------------|
| 90-35073   | 89            | 98            | 100           |

|                                  | QC LIMITS |
|----------------------------------|-----------|
| S1 (TOL) = Toluene-d8            | (80-120)  |
| S2 (BFB) = Bromofluorobenzene    | (80-120)  |
| S3 (DCE) = 1,2-Dichloroethane-d4 | (80-120)  |

# Column to be used to flag recovery values with an asterisk

\* Values outside of contract required QC limits



**ENERGY LABORATORIES, INC.**

P.O. BOX 30916 • 1107 SOUTH BROADWAY • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325  
FAX (406) 252-6069 • 1-800-873-5227

ENVIROCON  
PO BOX 1154  
LIVINGSTON MT 59047

RECEIVED

JAN 15 1991

ENVIROCON, Inc.  
Livingston, MT

**WATER VOLATILE SURROGATE RECOVERY**

PROJECT: Livingston/BN

| SAMPLE NO. | S1<br>(TOL) # | S2<br>(BFB) # | S3<br>(DCE) # |
|------------|---------------|---------------|---------------|
| 91-1695    | 100           | 85            | 110           |
| 91-1696    | 93            | 95            | 110           |
| 91-1697    | 99            | 103           | 95            |

|                                  | QC LIMITS |
|----------------------------------|-----------|
| S1 (TOL) = Toluene-d8            | 80-120    |
| S2 (BFB) = Bromofluorobenzene    | 80-120    |
| S3 (DCE) = 1,2-Dichloroethane-d4 | 80-120    |

# Column to be used to flag recovery values with an asterisk

\* Values outside of contract required QC limits





# ENERGY LABORATORIES, INC.

P.O. BOX 30916 • 1107 SOUTH BROADWAY • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325  
FAX (406) 252-6069 • 1-800-873-5227

ENVIROCON  
PO BOX 1154  
LIVINGSTON MT 59047

WATER VOLATILE SURROGATE RECOVERY

PROJECT: Livingston/BN

| SAMPLE NO. | S1<br>(TOL) # | S2<br>(BFB) # | S3<br>(DCE) # |
|------------|---------------|---------------|---------------|
| 90-35074   | 87            | 91            | 110           |
| 90-35075   | 99            | 94            | 99            |

|                                  | QC LIMITS |
|----------------------------------|-----------|
| S1 (TOL) = Toluene-d8            | 80-120    |
| S2 (BFB) = Bromofluorobenzene    | 80-120    |
| S3 (DCE) = 1,2-Dichloroethane-d4 | 80-120    |

# Column to be used to flag recovery values with an asterisk

\* Values outside of contract required QC limits

Q.A. Review: for Studies

